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ANTS OF THE GENUS *TETRAMORIUM* IN THE UNITED STATES
WITH THE DESCRIPTION OF A NEW SPECIES.

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Tetramorium Mayr is an Old World genus of ants containing over 300 described forms which are found in Europe, Africa, Asia, and the islands of the Eastern Hemisphere. No species is known to be indigenous to the United States or any part of continental America. Some of the Old World species, however, have been widely distributed by commerce and are now well established in the warmer sections of the globe and also in greenhouses in the more temperate regions.

Recently I was much surprised to find a new species of *Tetramorium* in a collection of ants received from R. H. Crandall of Wilawana, Pa. The six workers representing this species bear the label, "Prescott, Ariz., May 12, 1935, R. H. Crandall." In reply to a request for more information on the ants Mr. Crandall wrote that the specimens were collected 10 miles south of Prescott in a locality about a mile from the main highway and under some ponderosa pines at an altitude of more than a mile. He believes they were collected from the soil beneath a stone, as most of his collecting on May 12 was of that nature.

Previous to the receipt of the new ants, four species of *Tetramorium* were known to occur in the United States, all of which were undoubtedly introduced. The most common of the four forms is the well-known pavement ant, *Tetramorium caespitum* (L), which is now thoroughly established in many of our larger towns and cities, especially in those States bordering the Atlantic Ocean. There is every reason to believe that this species was brought in by the early colonists. The next most common species is the so-called Guinea ant, *T. guineense* (F), which is also well established in many of the more important towns of the South, especially in Florida and along the Gulf Coast. It is sometimes found in greenhouses in our more northern localities. *T. simillimum* (F. Smith) is occasionally found under circumstances similar to those under which *guine-*

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ense is encountered, but to my knowledge it is not so abundant in the United States as is *guineense*. The fourth species, *pacificum* Mayr, is present in at least one California locality.¹ That the four forms mentioned above were introduced is suggested by their common occurrence in or near urban centers or in greenhouses and nurseries, and by the frequent interception of all four species in shipments of plants or plant products from other countries.

It is possible that the new species from Arizona was also introduced, perhaps with the food or other supplies of camels, many of which were imported into the Western States from Africa during 1856 and 1857. Africa is known to contain more species of *Tetramorium* than any other region of the world.

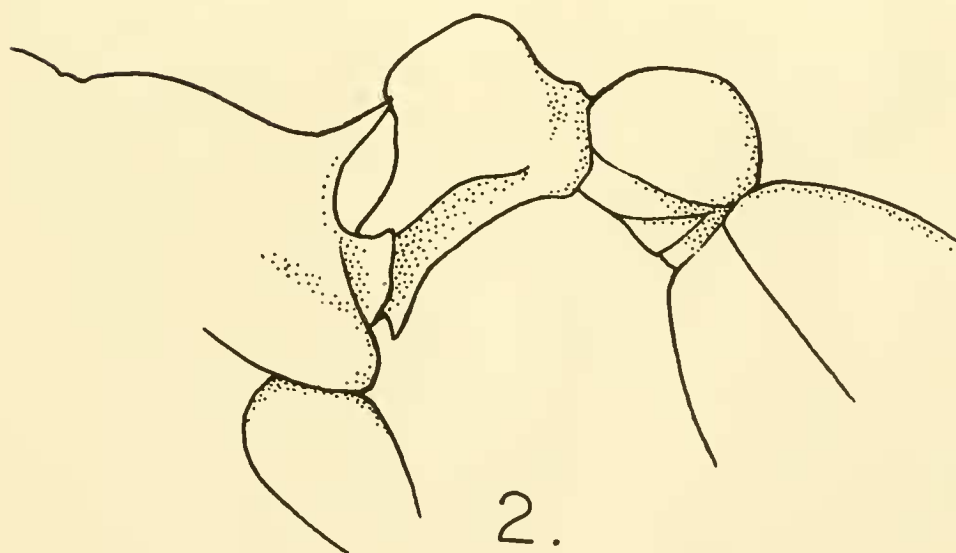
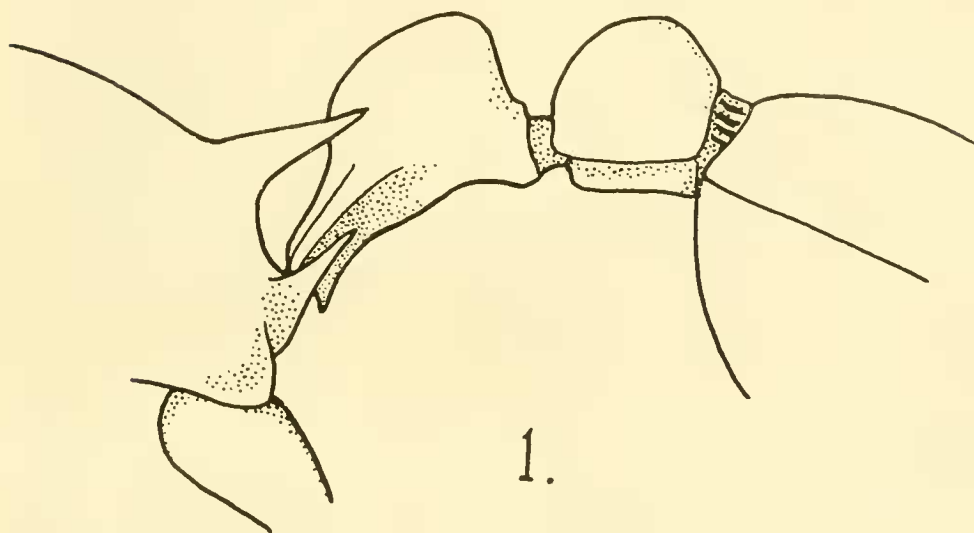
Except in the case of *caespitum* the habits of these introduced species are not well known. This ant infests houses, steals seeds from seed beds, gnaws into the roots of certain flowers and vegetables, and attends plant lice. I know from personal observation, however, that *guineense* also infests houses; and outdoors it often attends honeydew-excreting insects. All the introduced forms should be regarded as potential house pests.

The species of *Tetramorium* occurring in the United States may be distinguished by means of the following key which applies to workers only.

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|--|-----------------------------------|
| 1. Without an antennal sulcus | 2 |
| With an antennal sulcus | 3 |
| 2. At least the basal half of the first gastric segment longitudinally rugulose, subopaque; antennal scape unusually long and thick, extending past the posterior border of the head; humerus rounded; dorsal surface of clypeus with a median impression; epinotal spines not short and stubby; sculpturing of head, thorax, petiole, and postpetiole rugulose reticulate | |
| | <i>rugiventris</i> , new species. |
| Basal half of first gastric segment smooth and shining; antennal scape not unusually long and thick or attaining the posterior border of the head; humerus angular; dorsal surface of clypeus without a median impression; epinotal spines short and stubby; head and thorax longitudinally striated | <i>caespitum</i> (L.). |
| 3. Hairs on head, thorax, petiole, and postpetiole short, erect, enlarged apically; head longitudinally rugulose with alveoli between the rugulae; length 1.75–2.25 mm | |
| | <i>simillimum</i> (F. Smith). |
| Characters not as described above | 4 |

¹ The California form differs from specimens which I consider to be typical *pacificum* (collected at Somo Somo, Fiji, by W. M. Mann) in its lighter color, less compressed petiole, and broader petiole and postpetiole; but it does not seem to be sufficiently distinct to warrant naming it.

4. Petiolar node, in profile, subrectangular (fig. 2); reddish yellow with gaster brownish to blackish.....*guineense* (F.).
 Petiolar node, in profile, somewhat similar to that of *guineense* but with the anterodorsal angle lower and more rounded and the posterodorsal angle more acute (fig. 1); light brown or yellowish brown.....*pacificum* Mayr.



EXPLANATION OF FIGURES.

Profile view of petiole and postpetiole of (1) *Tetramorium pacificum* Mayr; (2) *Tetramorium guineense* (F.)
 Illustrations by Mrs. Mary Foley Benson.

Tetramorium rugiventris, new species.

Worker. Length 4.25 mm.

Head, excluding eyes and mandibles, approximately one and one-sixth times as long as wide, subrectangular, with weakly convex sides, rounded posterior angles, and very feebly rounded or straight posterior border. Mandible unusually large, subtriangular, with 2 prominent apical teeth and at least 4 smaller, indistinct teeth. Anterior border of clypeus rounded, not emarginate, and without teeth; posterior border extending well back between the frontal carinae and ending in a more or less straight, transverse suture; posterior half of clypeus with a pronounced median impression. Frontal area not well defined. Frontal carinae widely separated, short, but forming a prominent lobe over the base of each antennal scape. No antennal sulcus. Antenna 12-segmented, the last 3 segments forming a rather distinct club, which is shorter than the rest of the funiculus; scape unusually long and thick, extending beyond the posterior border of the head, strongly bent at base. Eye moderately large, more than its greatest diameter from base of mandible. Thorax, from above, with rounded humeral angles; promesonotal sutures indistinct or absent; mesoepinotal suture represented by a prominent constriction; thorax widest in region of humeral angles. Epinotal spines well developed but not unusually long or acute. Spurs of front leg strongly pectinate, spurs of middle and hind legs simple. Femora not strongly incrassated as with *guineense* and *pacificum*. Petiole weakly pedunculate; from above, with a node which is approximately seven-eighths as wide as long, rounded in front, and subparallel on the sides; ventral surface of peduncle with a prominent tooth. Postpetiolar node oval, widest posteriorly, approximately one and three-fifths times as broad as the petiolar node. Gaster rounded at the base, the first segment occupying almost all the gaster.

Mandibles and clypeus with coarse, longitudinal rugulae, the rugulae of the former especially strong. Frontal region of head longitudinally rugulose, elsewhere rugulose reticulate. Thorax coarsely rugulose reticulate except on the meso- and metapleurae. Petiole and postpetiole coarsely rugulose reticulate above. At least the basal half of the first gastric segment with coarse, longitudinal rugulae among which are scattered prominent, piligerous punctures. Antennal scape with very fine rugulae in addition to weak alveoli. Region between and below epinotal spines finely alveolate and shining. Coxae, femora, and tibiae with fine alveoli.

Hairs appearing grayish or yellowish according to the nature of the light, rather coarse, and moderately long and abundant, covering all parts of the body except the meso- and metapleurae, most erect on the thorax; each funicular segment with a whorl of suberect hairs.

Dark reddish brown, approaching black; mandibles, funiculi, and tarsi lighter.

Type locality.—Prescott, Ariz.

Holotype.—United States National Museum No. 56398.

Paratypes.—Three in the United States National Museum, one in the American Museum of Natural History, and one in the Museum of Comparative Zoology (Harvard).

Described from the holotype specimen which was collected at the type locality on May 12, 1935, by R. H. Crandall. The five paratypes bear the same labels as the holotype. They differ from the holotype in their slightly smaller size, darker color, and more clearly defined frontal area.

This very characteristic species is readily recognized by its unusually long and robust antennal scape, impression on the dorsal surface of the clypeus, large mandibles, shape of the petiole and postpetiole, the prominent longitudinal rugulae on the basal half of the first gastric segment, and the peculiar type of sculpturing which somewhat resembles that of the ants of the genus *Myrmica*.

**PHEIDOLE (MACROPHEIDOLE) RHEA WHEELER,
A VALID SPECIES.
(Hymenoptera: Formicidae.)**

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In 1908 (Amer. Mus. Nat. Hist. Bul. 24: 452) Wheeler described *Pheidole rhea* from an unusually large (14.3 mm.) wingless female now in the Cornell University collection, collected at Nogales, Ariz., by Oslar. In 1915 (Amer. Mus. Nat. Hist. Bul. 34: 403) he synonymized *rhea* with *fimbriata* Roger after comparing the Nogales female with winged females, soldiers, and workers of *fimbriata* collected at Cuatololapan, Vera Cruz, Mexico, by A. G. Ruthven. That Wheeler later recognized the error is indicated by numerous specimens of soldiers and workers in his collection which bear his handwritten label, *rhea*. At my request, L. G. Wesson, Jr., kindly checked Wheeler's description of *rhea* with the specimens of *fimbriata* collected in Mexico by Dr. Ruthven and now in the Museum of Comparative Zoology at Harvard, and he found that they are not the same species. He stated, furthermore, "Comparing majors (soldiers) with those of *fimbriata* shows that the differences between the description of the female *rhea* and female *fimbriata* are virtually the same differences as between the majors of the two forms."